IN THE CLAIMS:

1. (Previously Presented) A removable nonvolatile memory device for use in a storage system having an operating system kernel, comprising:

a plurality of partitions, each of the plurality of partitions capable of storing differentiated information;

a first kernel image, the first kernel image stored in a first partition of the plurality of partitions wherein the first kernel image is an upgrade kernel; and

a second kernel image, the second kernel image stored in a second partition of the plurality of partitions, wherein the second kernel image is a last known good kernel.

2. (Cancelled)

3. (Previously Presented) The removable nonvolatile memory device of claim 1, wherein the storage system further comprises a set of boot instructions including instructions for booting from the first kernel image.

4. (Previously Presented) The removable nonvolatile memory device of claim 3, wherein the set of boot instructions further comprises instructions for booting from the second kernel image if an error event occurs during booting from the first kernel image.

5. (Previously Presented) The removable nonvolatile memory device of claim 1, further comprising a set of diagnostic software, the diagnostic software stored in a third partition of the plurality of partitions.

6. (Previously Presented) The removable nonvolatile memory device of claim 5, further comprising a diagnostic log, the diagnostic log stored in a fourth partition of the plurality of partitions.

7. (Previously Presented) A storage system for a computer having a processor, a memory coupled to the processor, and a system bus to which the memory and processor are coupled, the computer having an operating system kernel and being configured to implement a file system, the storage system comprising:

a removable nonvolatile memory device coupled to the system bus, the removable nonvolatile memory device having a plurality of partitions, wherein a first partition of the plurality of partitions containing a kernel image, wherein the first kernel image is an upgrade kernel; and

a set of boot instructions resident in the storage system including instructions for booting from a first set partition of the removable nonvolatile memory device and instructions for booting from an alternate set partition of the removable nonvolatile memory device if an error event occurs during booting from the first set partition, wherein the removable nonvolatile memory device further comprises a second partition of the plurality of partitions, the second partition containing a last known good kernel image.

8. (Previously Presented) The storage system of claim 7 wherein the removable nonvolatile memory device is a compact flash.

9. (Cancelled)

10. (Previously Presented) The storage system of claim 7, wherein the set of boot instructions are contained in firmware within the storage system.

11. (Previously Presented) The storage system of claim 7 further comprising a third partition of the plurality of partitions, the third partition containing diagnostic software.

12. (Previously Presented) The storage system of claim 10 further comprising a fourth partition of the plurality of partitions, the fourth partition containing a diagnostic log.

13. (Previously Presented) A method for installing a new kernel image to a removable nonvolatile memory device having a plurality of partitions in a storage system comprising the steps of:

storing the new kernel image on a storage device;

copying a current boot kernel from a current boot kernel location to a last known good kernel location; and

copying the new kernel image to the current boot kernel location.

14. (Currently Amended) The method of claim ~~11~~13, wherein the current boot kernel location is a first partition of the removable nonvolatile memory device.

15. (Currently Amended) The method of claim ~~11~~13, wherein the last known good kernel location is a second partition of the removable nonvolatile memory device.

16. (Currently Amended) The method of claim ~~11~~13, wherein the storage device further comprises one or more storage disks operatively interconnected to the storage system.

17. (Cancelled)

18. (Previously Presented) A method for installing an upgrade kernel in a computer system having a removable nonvolatile memory device, the removable nonvolatile memory device having at least a first partition and a second partition, the computer system currently executing a copy of an old kernel stored in the first partition of the removable nonvolatile memory device, the method comprising the steps of:

determining if the computer system booted from the old kernel, and if so, copying the old kernel from the first partition to make a copy of the old kernel to place in the second partition;

adjusting a set of boot variables so that the computer will boot from the second partition;

copying a stored copy of the upgrade kernel to the first partition; and

adjusting the set of boot variables so that the computer will boot from the first partition.

19. (Previously Presented) The method of claim 18 further comprising the step of:

verifying the copy of the old kernel written to the second partition before adjusting the set of boot variables so that the computer will boot from the second partition.

20. (Cancelled)

21. (Previously Presented) A method for installing an upgrade kernel in a computer system having a removable nonvolatile memory device, the removable nonvolatile memory device having at least a first partition and a second partition, the computer system currently executing a copy of an old kernel stored in the second partition of the removable nonvolatile memory device, the method comprising the steps of:

outputting a message to a user alerting the user that the computer booted from a last known good kernel;

adjusting a set of boot variables so that the computer will boot from the second partition;

copying a stored copy of the upgrade kernel to the first partition; and

adjusting the set of boot variables so that the computer will boot from the first partition.

22. (Previously Presented) The method of claim 19 further comprising the step of:

verifying the copy of the upgrade kernel to the first partition before adjusting the set of boot variables so that the computer will boot from the first partition.

23. – 28. (Cancelled)